

**AMENDMENTS TO THE DRAWINGS**

Applicant attaches herewith four (4) replacement sheets, each sheet having a corresponding one of the properly labeled FIGs. 1-4 that were filed in the original application, the four sheets collectively replacing the unlabeled versions FIGS. 1-4 that were also erroneously included in the original application.

## REMARKS

Favorable reconsideration of this application, for the reasons Applicant hereby respectfully submits hereinbelow, is respectfully requested.

Claims 1-11 are the only claims currently active in this application, and all are shown on attached separate sheets marked as "Listing of Claims," each having an indication at its first line showing the claim's current status.

Regarding the Office Action statement of the oath or declaration being "defective," Applicant respectfully responds that diligent efforts are ongoing to effect execution of a new oath or declaration that better identifies the Provisional Application 60/496,958, and Applicant will timely submit the new oath(s), and/or any and all necessary petitions should any executions be determined unavailable.

### I. OBJECTIONS TO THE SPECIFICATION

The Office Action at page 2 objects to the form of the Abstract, and at pages 2-4 objects to some alleged failure of the specification to identify Provisional Application 60/496,958 to which the instant application claims priority.

Regarding the objection to the form of the Abstract, Applicant responds that the new Abstract that is submitted as a separate sheet in this paper meets all relevant form requirements. Applicant respectfully submits that the new Abstract is simply a form change of the originally filed Abstract and does not constitute new matter.

Applicant respectfully traverses the objection regarding some alleged failure to identify Provisional Application No. 60/496,958. Applicant submits that the Preliminary Amendment filed February 6, 2006, on this application inserts a proper identification and cross-reference to the provisional application.

## **II. OBJECTION TO THE DRAWINGS**

The Office Action at pages 4-5 objects to the drawings on the stated reasoning that the blocks "fail to provide any description or name reference to the reference numbers."

Applicant respectfully responds that the four (4) replacement sheets submitted have new FIGs. 1-4, which are the properly labeled form of FIGs. 1-4 from Provisional Application Serial No. 60/496,958, that meets all pertinent requirements governing figures of a patent application. Based on Provisional Application No. 60/496,958 being incorporated by reference, and further based on the originally filed specification describing the blocks with language in the labeling of the new FIGs. 1-4, the new figures are not new matter.

Applicant, for the reasons submitted hereinabove, respectfully requests the objection be reconsidered and withdrawn.

### **III. REJECTIONS UNDER 35 U.S.C. § 101**

The Office Action at pages 5-6 recites a rejection of claims 5-11, on the stated position that the claims, as interpreted by the Office Action, do not meet the Office Action's asserted interpretation of 35 U.S.C. § 101.

Applicant respectfully traverses the rejection.

Applicant respectfully submits that the claim 5 definition of the method in terms of a particular machine, namely a machine having an index register and a Task ID memory storing a flag, and then performing the method on that machine, e.g., issuing a Task ID to the task, setting and resetting a flag in the machine's Task ID memory, defines a method tied to "a particular machine," thereby defining claim 5 as limited to subject matter patentable under 35 U.S.C. § 101.

To expedite this application, however, Applicant amends the instant claims 1-5 according to the Examiner's suggestion at page 6. Applicant states that this amendment does not constitute a waiver of Applicant's traversal, does not operate as a disclaimer of subject matter, and is without prejudice to Applicant's right to later pursue original claims 5-11 and any other claims to any subject matter disclosed by the original application.

Applicant, for at least the reasons presented hereinabove, respectfully requests these rejections be reconsidered and withdrawn.

#### **IV. REJECTIONS UNDER 35 U.S.C. § 112, SECOND PARAGRAPH**

The Office Action at pages 6-7 recites a rejection under Section 112, second paragraph, of claims 4, 8 and 9, on the stated position that the Examiner “does not clearly underst[and] the criteria for alternating between first a write to the index register or a write to the data register and second a write to the index register and a read to the data register.”

The Office Action also recites, at the same pages, what to Applicant appears as a similar kind of rejection of claims 10 and 11, on the stated position the “criteria for steering” is not clearly understood by the Examiner.

Applicant respectfully responds that claims 4, 8, 9, 10 and 11 are amended for form to clarify the event controlling the toggling, the aspects of the sequential orders of writes and reads, and the “criteria for steering” read and write accesses to the index register and data register.

Applicant respectfully submits the amended form of claims 4, 8, 9, 10 and 11 meets the definiteness requirements of 35 U.S.C. § 112, second paragraph and, accordingly, respectfully requests the rejections be reconsidered and withdrawn.

#### **V. Rejections Under 35 U.S.C. § 103(a)**

The Office Action at pages 7-10 recites a rejection of claims 1-3 and 5-7 under 35 U.S.C. § 103(a), on the stated position that the claims are unpatentable over Halstead et al., “MASA: A Multithreaded Processor Architecture for Parallel

Symbolic Processing," IEEE (1988), (referred to hereafter as "*Halstead*"), in view of U.S. Patent No. 6,233,599 (referred to hereafter as "*Nation*").

Applicant respectfully traverses the rejections.

Applicant's base claim 1 and 5 inventions provide a system and method, respectively, having a plurality of index registers for a corresponding plurality of processing units, each index register pointing to a Task memory storing respective instructions, with structure and method steps set the index registers to remove the prior art need for assigning a plurality of bus addresses for a plurality of index registers, and to allow the multiple processing units to share the Task memory without collision, without substantial wait time for access to a single index register, and without requiring locking of resources by individual processors until tasks are completed. *See*, for example, Specification at page 7, lines 11-24.

Applicant's base claim 1 is amended for clarity, and provides such features with a system having, in combination with other elements: an index register storing a data register pointer; a Task register coupled to the index register and configured to store a Task keyed to the index register; and a Task memory coupled to the Task register and configured to store a flag indicating whether or not the Task is available. Claim further includes a state machine coupled to the Task memory, configured (a) to receive a Task request from a task, (b) to determine whether a Task is available in response to the Task request, (c) when a Task is available to

issue a Task to the task and set the flag to indicate the Task is in use, and (d) when the task is complete to reset the flag to indicate that the Task is available.

Applicant's based claim 5 defines method subject matter similar to the above-summarized subject matter of claim 1.

The Examiner's position, as understood by Applicant, is that *Halstead* at page 445, right column, lines 22-28; page 446, left column, lines 1-13 and 33-52 discloses subject meeting that, in the Examiner's opinion, embodies every recitation of claims 1 and 5 except for the "Task IDs." Office Action at pages 7-8. The Examiner, based on the above position taken with respect to *Halstead*, then cites *Nation* as a teaching of "Task IDs." Office Action at page 8.

Applicant respectfully disagrees with the Examiner's position on *Halstead*, and submits that *Nation* and *Halstead*, collected and read in their entirety, lack managing a plurality of tasks in relation to a task memory resource, using a plurality of task (or equivalent) identifiers, each identifier having a flag or equivalent indicating its availability, with each task identifier coupled, in any manner, to a corresponding index register, and each index register pointing to a data register, with a state machine or equivalent method step managing the flags.

Applicant respectfully submits that reading *Halstead*'s description of its "paper architecture" in its entirety, including the paragraph starting at the third-to-last line of the leftmost column of page 449 and ending at the top third of the

rightmost column, *Halstead*'s disclosure (with or without *Nation*) lacks at least the above-identified subject matter of claims 1 and 5.

Applicant respectfully requests, for at least the reasons presented above, that the rejection of base claims 1 and 5, and their dependent claims 2, 3, 6 and 7 be reconsidered and withdrawn.

The Office Action also recites a rejection of dependent claims 4 and 8-11, on stated position that the claims are unpatentable under 35 U.S.C. § 103, based on the Examiner's position on *Halstead* and *Nation* that is asserted in the rejection of base claims 1 and 5, further extended with U.S. Patent o. 6,314,486 ("*Schultz*") to reach Applicant's dependent claims 4 and 8-11.

Applicant respectfully traverses the rejections, and further responds *Schultz* does not cure the deficiency of *Halstead* and *Nation* in comparison to base claims 1 and 5. Applicant further responds that claims 4 and 8-11 are amended for clarity, and that the combined teachings of *Halstead*, *Nation* and *Schultz* lack subject matter that is defined by these dependent claims.

Applicant therefore respectfully requests, for at least the reasons presented above, that the rejection of dependent claims 4 ad 8-11 be reconsidered and withdrawn.

## CONCLUSION

In view of the remarks above, Applicant believes that each of the rejections/objections has been overcome and the application is in condition for allowance. In the event that the fees submitted prove to be insufficient in

connection with the filing of this paper, please charge our Deposit Account Number 50-0578 and please credit any excess fees to such Deposit Account. Should there be any remaining issues that could be readily addressed over the telephone, the Examiner is asked to contact the attorney overseeing the application file, Aaron Waxler, of NXP Corporation at (408) 474-5029.

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Respectfully submitted,  
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